

ABSTRACT OF THE DISCLOSURE

An embolic balloon assembly is disclosed herein. The assembly includes a detachable balloon system which expands while aspirating a quantity of surrounding blood to occlude a vessel or aneurysm. The balloon has a distensible membrane having a plurality of orifices throughout its surface. Within the distensible membrane is a plurality of expandable members made from a shape memory alloy, e.g., Ni-Ti alloy, which expand upon application of a stimulus. Alternatively, the expandable members or a single expandable wire may be inserted separately into the distensible membrane. Once the balloon begins to expand, internal pressure within a volume defined by the distensible membrane begins to drop, forcing the device to aspirate a quantity of surrounding blood inside the volume which then begins to coagulate by stasis or some stimulus. The balloon may be configured to automatically release into the aneurysm or vessel or it may be released by a detachable joint.